

AVOIDANCE AND PERSISTENCE: CAPACITY OR MOTIVATION?

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To the Editor:

In their letter to the editor, Andrews and colleagues¹ provide a thoughtful reflection on some of the issues that have been raised in our review² on avoidance and persistence in chronic pain. They discuss the validity of objective measures of physical activity, i.e., accelerometry, as indicators of avoidance, persistence, and over-activity. They argue that there is large variability in physical activity levels due to a range of possible reasons, including individual differences in physical capacity, and therefore recommend not to use objective physical activity parameters as the sole indicators of avoidance and persistence. We fully agree with their recommendation, and never suggested that objective measures of physical activity should replace self-report measures, rather that they should complement them. While accelerometry-based activity registration techniques are without doubt helpful in quantifying behavioral patterns, they should always be used in combination with self-report assessment, and with a number of methodological considerations in mind³. Fluctuations in activity levels can only be interpreted as pain-related avoidance and persistence, when we know what people are doing or stopped doing, and perhaps even more interesting, why. Electronic diary assessment could be a valuable tool to provide relevant information, both for research and clinical purposes, as it allows daily process analyses of personal goal pursuit, pain-related goal interference, and levels of physical activity. While there exist excellent examples of diary studies assessing either physical activity⁴ or personal goal pursuit⁵, it is probably the combination and integration of both types of data that could bring the largest gain to the field.

Another issue raised by Andrews and colleagues¹, which deserves further attention, is that low activity levels do not necessarily indicate avoidance behavior,

but may rather reflect incapacity as a result of pain. They argue that this may be also the case in those showing “over-activity” or “over-doing”, defined as “persisting with activities to a point where pain is significantly exacerbated resulting in a period of inactivity”. This reasoning is, however, not without problems. One potential problem we have previously described² is that pain-induced incapacity strongly overlaps with the concept of disability. Therefore, studies investigating the effect of behavioral patterns, such as over-activity, on clinical outcomes, such as disability, will typically result in high correlations, but this may be mainly due to conceptual overlap between independent and dependent variables. Is there a solution for this problem? Perhaps a modification in the conceptualization and operationalization of “over-activity” could be considered. One possibility would be omitting the pain-contingent aspect of the definition, and rather focus on how fluctuations in activity level could be compared to the expected level of activity based upon objective physical capacity. Obviously this is a big challenge that requires systematic research and innovative measurement techniques to objectify actual capacity of patients with chronic pain. Some useful suggestions have been discussed⁶, but a lot of work needs to be done.

Another problem is that drawing the line between pain-induced incapacity and (intentional) pain-related avoidance behavior may prove very difficult. Of course, extreme injuries or musculoskeletal damages, may lead to the inability to execute certain behaviors, and in such cases one could speak in term of incapacity. Most situations, however, are less extreme. Often there is chronic pain but no clear biomedical damage. It is well accepted that there are large inter-individual and intra-individual differences in how pain is perceived, interpreted, and acted upon^{7,8}. It seems logical, then, that motivational factors come into play⁹. The willingness to tolerate pain during activity is affected by individual differences (e.g., personality

characteristics)¹⁰ as well as by contextual factors (e.g., the type of goal one is pursuing by the behavior)¹¹⁻¹². It could therefore be argued that pain-related behavior is strongly affected by self-regulatory processes such as, for example, the continuous weighting of benefits and costs of the current behavior in light of the pursued goal. As soon as the costs exceed the benefits, the behavior may be halted and, possibly, the goal will be re-appraised. Should this be labeled “avoidance” then? Probably this term is only applicable when fear of pain and (re)injury is the major reason to stop the behavior⁷. It can thus be concluded that inactivity may have a lot of different causes, and that fear-driven avoidance is only one explanation. We argue that applying a broader self-regulation perspective may help increasing our understanding of different behavior patterns in chronic pain².

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